

Notice of Allowability	Application No.	Applicant(s)	
	10/715,467	JIANG, LULIANG	
	Examiner	Art Unit	
	USMAAN SAEED	2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 02/25/2010.
2. ☒ The allowed claim(s) is/are 1, 2, 4, 6, 8-11, 13, 15-17 and 20 (renumbered as 1-13).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>8/(26&30&31)/10</u> . 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____. |
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/Usmaan Saeed/
Examiner, Art Unit 2166

Usmaan Saeed
Examiner, Art Unit 2166
September 1, 2010

DETAILED ACTION

1. This communication is in response to the amendment filed on 02/25/2010.

After thorough search and examination of the present application and in light of the prior art made of record, claims 1, 2, 4, 6, 8-11, 13, 15-17 and 20 (renumbered as 1-13) are allowed.

Claims 3, 5, 7, 12, 14, and 18-19 have been cancelled.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney, Pedro F. Suarez Registration No. 45,895 on August 26th, 30th and 31st, 2010.

Please amend the claims, which were filed on 02/04/2010 with new versions as follows:

1. (Currently Amended) An apparatus, comprising:
a resolver configured to perform name resolving;
a first connector configured to provide a first direct connection to a first network, using a first network protocol;

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a second connector configured to provide a second direct connection to a second network using a second network protocol, wherein, when the resolver in the first network forwards a name resolving request to a domain name service server in the second network, the name resolving request is sent directly from the resolver in the first network to the second network without using a network address translator server configured to process packets other than the name resolving request sent to the second network; and

a translator configured to perform address translation between the first network and the second network, the translator, separate from the network address translator server, performing address translation on the name resolving request sent directly to the second network without using the network address translator server;

wherein the resolver and the translator are configured to co-operate in order to translate addresses upon performing name resolving, and wherein the resolver and the translator are ~~configured~~ implemented on the same domain name server for resolving the name resolving request rather than data traffic corresponding to the packets other than the name resolving request and occurring after the name resolving is performed,

wherein the translator is configured to select a particular network address translating element to be used for a connection between a first host in the first network and a second host in the second network,

wherein the translator is configured to add network address translating element information to the resolved address,

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wherein the translator is configured to select the particular network address translating element based on information regarding the load on the network address translating element, and

wherein the particular network address translating element is configured to send load information to a network element.

2. (Currently Amended) The apparatus according to claim 1, wherein the apparatus comprises a the domain name service server, and wherein the translator performs address translation on a response to the name resolving request sent to the second network.

3. (Cancelled).

4. (Currently Amended) The apparatus according to claim ~~3~~1, wherein the network address translating element information is an address prefix.

5. (Cancelled).

6. (Previously Presented) The apparatus according to claim 1, wherein the first protocol is internet protocol version 6, and the second protocol is internet protocol version 4.

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7. (Cancelled).

8. (Currently Amended) A system, comprising:

a network name resolving element and at least two network address translating elements,

the network name resolving element configured to perform name resolving in a network system which includes a first network using a first network protocol and a second network using a second network protocol, the system further ~~network element~~ comprising

a resolver configured to perform name resolving,

a first connector configured to provide a first direct connection to the first network,

a second connector configured to provide a second direct connection to the second network, such that when the resolver in the first network forwards a name resolving request to a domain name service server in the second network, the name resolving request is sent directly from the resolver in the first network to the second network without using a network address translator server configured to process packets other than the name resolving request sent to the second network, and

a translator configured to perform address translation between the first network and the second network, the translator, separate from the network address translator server, performing address translation on the name resolving request sent directly to the second network without using the network address translator server,

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wherein the resolver and the translator are configured to co-operate in order to translate addresses upon performing name resolving, and wherein the resolver and the translator are ~~configured~~ implemented on the same domain name server for resolving the name resolving request rather than data traffic corresponding to the packets other than the name resolving request and occurring after the name resolving is performed,

wherein the translator is configured to select a particular network address translating element to be used for a connection between a first host in the first network and a second host in the second network,

wherein the translator is configured to add network address translating element information to the resolved address,

wherein the translator is configured to select a the particular network address translating element based on information regarding the load on the network address translating element, and

wherein the particular network address translating elements ~~are~~ is configured to send load information to the ~~network element system~~.

9. (Previously Presented) The system according to claim 8, wherein the load information is sent using a simple network management protocol.

10. (Currently Amended) A method, comprising:
processing, at a resolver, a name resolving request to obtain an address; and

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performing, at a translator, address translation between a first network using a first network protocol and a second network using a second network protocol,

wherein the name resolving request processing and the address translation are performed in the resolver configured to perform name resolving, located in the first network, and having a first direct connection to the first network and a second direct connection to the second network, such that when the resolver in the first network forwards the name resolving request to a domain name service server in the second network, the name resolving request is sent directly from the resolver in the first network to the second network, the translator, separate from a network address translator server, performing address translation on the name resolving request sent directly to the second network without using the network address translator server configured to process packets other than the name resolving request sent to the second network, wherein the resolver and the translator are configured to co-operate in order to translate addresses upon performing name resolving, and wherein the resolver and the translator are ~~configured~~ implemented on the same domain name server for resolving the name resolving request rather than data traffic corresponding to the packets other than the name resolving request and occurring after the name resolving is performed,

wherein the translator is configured to select a particular network address translating element to be used for a connection between a first host in the first network and a second host in the second network,

wherein the translator is configured to add network address translating element information to the resolved address,

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wherein the translator is configured to select the particular network address translating element based on information regarding the load on the network address translating element, and

wherein the particular network address translating element is configured to send load information to a network element.

11. (Currently Amended) The method according to claim 10, wherein the network element is a the domain name service server.

12. (Cancelled).

13. (Currently Amended) The method according to claim ~~42~~10, wherein the network address translating element information is an address prefix.

14. (Cancelled)

15. (Previously Presented) The method according to claim 10, wherein the first network protocol is internet protocol version 6, and the second network protocol is internet protocol version 4.

16. (Currently Amended) The method according to claim ~~44~~10, further comprising:

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sending load information from at least two network address translating elements to the network element.

17. (Previously Presented) The method according to claim 16, wherein the load information is sent using simple network management protocol.

18. (Cancelled)

19. (Canceled)

20. (Currently Amended) A computer program, embodied on a non-transitory computer readable storage medium, configured to control a processor to implement a method, the method, comprising:

processing a name resolving request to obtain an address; and

performing address translation between a first network using a first network protocol and a second network using a second network protocol,

wherein the processor is located in a dedicated network name resolving element configured to perform name resolving located in the first network and having a first direct connection to the first network and a second direction connection to the second network, such that when a resolver in the first network forwards a name resolving request to a domain name service server in the second network, the name resolving request is sent directly from the resolver in the first network to the second network, the

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dedicated network name resolving element further comprising a translator performing address translation on the name resolving request sent directly to the second network without using a network address translator server configured to process packets other than the name resolving request sent to the second network, wherein the resolver and the translator are configured to co-operate in order to translate addresses upon performing name resolving, and wherein the resolver and the translator are ~~configured~~ implemented on the same domain name server for resolving the name resolving request rather than data traffic corresponding to the packets other than the name resolving request and occurring after the name resolving is performed,

wherein the translator is configured to select a particular network address translating element to be used for a connection between a first host in the first network and a second host in the second network,

wherein the translator is configured to add network address translating element information to the resolved address,

wherein the translator is configured to select the particular network address translating element based on information regarding the load on the network address translating element, and

wherein the particular network address translating element is configured to send load information to the domain name service server.

Reason for Allowance

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3. The prior art made of record does not teach or fairly suggest the combination of elements, as recited in independent claims 1, 8, 10 and 20.

More specifically, the prior art of records does not specifically suggest the combination of “the resolver in the first network forwards a name resolving request to a domain name service server in the second network, the name resolving request is sent directly from the resolver in the first network to the second network without using a network address translator server configured to process packets other than the name resolving request sent to the second network; wherein the resolver and the translator are configured to co-operate in order to translate addresses upon performing name resolving, and wherein the resolver and the translator are implemented on the same domain name server for resolving the name resolving request rather than data traffic corresponding to the packets other than the name resolving request and occurring after the name resolving is performed, wherein the translator is configured to add network address translating element information to the resolved address, wherein the translator is configured to select the particular network address translating element based on information regarding the load on the network address translating element” in combination with all the other limitations in the independent claim 1 and “the resolver in the first network forwards a name resolving request to a domain name service server in the second network, the name resolving request is sent directly from the resolver in the first network to the second network without using a network address translator server configured to process packets other than the name resolving request sent to the second network, and wherein the resolver and the translator are configured to co-operate in

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order to translate addresses upon performing name resolving, and wherein the resolver and the translator are implemented on the same domain name server for resolving the name resolving request rather than data traffic corresponding to the packets other than the name resolving request and occurring after the name resolving is performed, wherein the translator is configured to add network address translating element information to the resolved address, wherein the translator is configured to select the particular network address translating element based on information regarding the load on the network address translating element” in combination with all the other limitations in the independent claim 8 and “wherein the name resolving request processing and the address translation are performed in the resolver configured to perform name resolving, located in the first network, when the resolver in the first network forwards the name resolving request to a domain name service server in the second network, the name resolving request is sent directly from the resolver in the first network to the second network, wherein the resolver and the translator are configured to co-operate in order to translate addresses upon performing name resolving, and wherein the resolver and the translator are implemented on the same domain name server for resolving the name resolving request rather than data traffic corresponding to the packets other than the name resolving request and occurring after the name resolving is performed, wherein the translator is configured to add network address translating element information to the resolved address, wherein the translator is configured to select the particular network address translating element based on information regarding the load on the network address translating element” in combination with all the other limitations in the

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independent claim 10 and “when a resolver in the first network forwards a name resolving request to a domain name service server in the second network, the name resolving request is sent directly from the resolver in the first network to the second network, the dedicated network name resolving element further comprising a translator performing address translation on the name resolving request sent directly to the second network without using a network address translator server configured to process packets other than the name resolving request sent to the second network, wherein the resolver and the translator are configured to co-operate in order to translate addresses upon performing name resolving, and wherein the resolver and the translator are implemented on the same domain name server for resolving the name resolving request rather than data traffic corresponding to the packets other than the name resolving request and occurring after the name resolving is performed, wherein the translator is configured to add network address translating element information to the resolved address, wherein the translator is configured to select the particular network address translating element based on information regarding the load on the network address translating element” in combination with all the other limitations in the independent claim 20.

These features together with other limitations of the independent claims are novel and non-obvious over the prior art of record. The dependent claims 2, 4, 6, 9, 11, 13, and 15-17 being definite, enabled by the specification, and further limiting to the independent claims, are also allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to USMAAN SAEED whose telephone number is (571)272-4046. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (571)272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Usmaan Saeed

Patent Examiner, Art Unit: 2166

August 31, 2010

/Usmaan Saeed/

Examiner, Art Unit 2166